



THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
FEES FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975

IFW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :
Daihei SUGITA et al. : **Mail Stop: PCT**
Serial No. 10/577,442 : Attorney Docket No. 2006_0490A
Filed April 27, 2006 :

METHOD FOR MANUFACTURING
SEMICONDUCTOR CHIP
[Corresponding to PCT/JP2004/017955
Filed December 2, 2004]

**SUBMISSION OF ENGLISH VERSIONS OF INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY AND WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:


Submitted herewith for consideration by the Examiner are:

- 1) An English version of the International Preliminary Report on Patentability; and
- 2) An English version of the Written Opinion of the International Searching

Authority.

Respectfully submitted,

Daihei SUGITA et al.

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September 20, 2006

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference SK326WO	FOR FURTHER ACTION	See item 4 below
International application No. PCT/JP2004/017955	International filing date (<i>day/month/year</i>) 02 December 2004 (02.12.2004)	Priority date (<i>day/month/year</i>) 02 December 2003 (02.12.2003)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant SEKISUI CHEMICAL CO., LTD.		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input checked="" type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Date of issuance of this report 24 July 2006 (24.07.2006) Authorized officer <div style="text-align: center; font-weight: bold; font-size: 1.2em;">Masashi Honda</div> e-mail: pt08@wipo.int
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PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

SK326WO

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2004/017955

International filing date (day/month/year)

02.12.2004

Priority date (day/month/year)

02.12.2003

International Patent Classification (IPC) or both national classification and IPC

Applicant

SEKISUI CHEMICAL CO., LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2004/017955

Box No. I **Basis of this opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language
_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2004/017955

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims	8-10	YES
	Claims	1-7, 11, 12	NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO
2. Citations and explanations:			
<p>Document 1: WO, 03-085714, A1 (Sekisui Chemical Co., Ltd.), 16 October, 2003 (16.10.03), the claims & EP, 1494272, A1</p> <p>Document 2: JP, 11-67699, A (Nippon Texas Instruments Kabushiki Kaisha), 9 March, 1999 (09.03.99), [0021]</p> <p>The subject matters of claims 1-7, 11 and 12 do not appear to involve an inventive step in view of documents 1 and 2. It is disclosed in document 1 that an adhesive tape for dicing, which contains a gas generator that generates gas by ultraviolet rays, is bonded to a semiconductor wafer and diced, and that divided semiconductor chips are individually irradiated with ultraviolet rays and separated from the adhesive tape. In cited document 2, it is stated that semiconductor chips are picked up by means of a collet. A person skilled in the art could have easily conceived of applying the technical matters of cited document 2 to the invention of cited document 1.</p> <p>Since cited document 1 describes to dice the tape with the other side up, apparently the adhesive tape is bonded to the semiconductor chip surface formed with a circuit.</p> <p>Guiding ultraviolet rays to the adhesive tape bonded to individual semiconductor chips and irradiating them so as to meet the conditions mentioned in claims 6 and 12 could have been easily arrived at by a person skilled in the art on the basis of the description in cited document 1 that ultraviolet rays are irradiated only to predetermined chips.</p> <p>The wavelength and intensity of ultraviolet rays to be irradiated are matters to be decided on when designing.</p> <p>The subject matters of claims 8-10 are neither disclosed in any of the documents cited in the ISR nor obvious to a person skilled in the art.</p>			

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/017955

Box No. VI Certain documents cited

1. Certain published documents (Rule 43bis.1 and 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
JP 2004-281659 A [E, X]	07.10.2004	14.03.2003	

2. Non-written disclosures (Rule 43bis.1 and 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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